

## REMARKS/ARGUMENTS

1. The amendments made in this reply to the Office communication of April 20, 2006 are intended to:

- (a) revise Claim 1 of the application, in response to Item 6 of the Office Action, which objects to the relative limitation "most uniquely associated" in line 5 of Claim 1 as being vague and indefinite.
- (b) amend the specification, in response to Item 10 of the Office Action, which objects that the instant specification causes the invention not to be enabled, because the instant specification merely describes the URL for accessing the "rainbow" computer program documentation stored elsewhere on a Web site.

2. The first amendment in this reply to the Office Communication amends the specification by including the published, public domain "bow-19991122" software toolkit as a computer program listing appendix, on compact disc. That software toolkit includes within it the "rainbow" computer program, which serves as a front-end to the rest of the "bow" toolkit. As a result of this amendment, the specification contains the "rainbow" computer program within the compact disc appendix to the application, rather than simply providing the URL for accessing it on a Web site. The compact disc also contains a tutorial for the "rainbow" computer program, Rainbow.htm, rather than simply providing that same URL for accessing it over the internet. Please note that the author of the public domain material that is contained in the compact discs, Andrew McCallum, requested that the material be cited as was written in the first amendment. The citation contains text identifying the Web site "<http://www.cs.cmu.edu/~mccallum/bow>", where the material was (and is now) published. Therefore, applicant requests that this literal text not be considered to be an embedded hyperlink.

3. Two compact discs are enclosed with this response to the Office Communication, providing the program listing appendix. The compact disc with "COPY 1" on its affixed label is the original, and the compact disc with "COPY 2" on its affixed label is an exact duplicate of the "COPY 1" compact disc. A transmittal letter for the compact discs is also enclosed, entitled "Transmittal Letter for Submission of Computer Program Listing 'bow19991122'". The

transmittal letter has attached to it a directory listing of the contents of the compact disc, entitled "directory\_bow19991122\_complete."

4. A declaration is also enclosed with this response to the Office Communication, entitled "David R. Rigney With An Attached Document Entitled "rainbow --help". This declaration is intended to conform with the paragraph form 6.19 in MPEP 608.01(p) Completeness:

The incorporation of essential material in the specification by reference to ... a publication [the "rainbow" program listing and associated documentation] is improper. Applicant is required to amend the disclosure to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by the applicant, ... stating that the amendatory material consists of the same material incorporated by reference in the referencing application.

The declaration also has attached to it a document entitled "rainbow --help", which is the information that the "rainbow" program provides in response to a command for help. Because the document "rainbow --help" is not a pre-existing publication (e.g., at a Web site), Applicant did not include it on the enclosed compact disc. However, Applicant believes that under the doctrine of inherency, the entire document is a part of the original disclosure because it was described in the original disclosure (e.g., page 37, lines 18-21). The doctrine of inherency states that if an application discloses an object [e.g., the "rainbow" computer program] that inherently includes a function, property, or advantage [e.g., the response to a command for help, which is printed in the "rainbow --help" document] , then that function, property or advantage is necessarily disclosed by that application even though the application says nothing directly about the inherent function, property or advantage. (Technicon Instruments Corp. v. Cole Instrument Inc., 255 F. Supp. 630, 640-41, 7<sup>th</sup> Cir. 1966).

5. The above-mentioned "paragraph form 6.19 in MPEP 608.01(p) Completeness" is followed by citations that justify submission of the pre-existing, published material on the enclosed compact disc, at any point in the prosecution of the application prior to an issue date. The relevant case law appears to be as follows. "A patent applicant need not include in [the] specification that which is already known and available to the public" and "Added subject matter, to the extent that it is not 'new matter', does not deprive the applicant of the original filing date" [See Paperless Accounting Inc. v. Bay Area Rapid Transit Systems 804 F.2d 659, Fed. Cir,

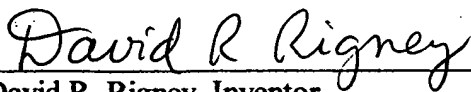
1986]. "Disclosure in a patent application may be deliberately supplemented or completed by reference ..., in general, to disclosure which is available to the public" [See *in re Lund*, 376 F.2d 982, 989, C.C.P.A., 1967]. "Amendment to patent application is not 'new matter' within the rules of Patent Act or rules of the patent office, unless it discloses invention, process, or apparatus not theretofore described; if later submitted material accused of being 'new matter' simply clarifies or completes prior disclosure, it cannot be treated as 'new matter' [*Triax Co. v. Hartman Metal Fabricators, Inc.* 479 F.2d 951, 956-57, 2d Cir., 1973]. "Statute providing that a specification shall contain a written description of the invention and the manner of making and using it and requiring complete public disclosure is only violated if disclosure is not complete at the time it is made public, the issue date"; and "Commissioner of Patents is vested with broad discretion to determine in what instances mere incorporation by reference is proper and in what instances the material incorporated must be added to the disclosure" [*In re Hawkins*, 486 F.2d 569].

**6. In Items 10 and 11 of the Office communication of April 20, 2006, the Examiner finds that the instant specification points to a Web site for the rainbow computer program recited in Claim 1; that the instant specification merely describes the URL for accessing the rainbow computer program documentation stored elsewhere on the Web; and that this pointing to published information is not sufficient to inform those skilled in the art how to both make and use the claimed invention as a whole. Items 10 and 11 are directed to the amendments that Applicant filed on February 2, 2006, in response to the Office communication with a mailing date of November 4, 2005, which dealt with the incorporation by reference of the pre-existing, publicly available, software toolkit that contains the "rainbow" computer program. In the instant Amendment 1, Applicant discloses the 'rainbow' software and documentation in an appendix on compact disc and incorporates the material on the compact disc by reference. Applicant is permitted to submit that compact disc now for the reasons stated in the previous paragraph. Accordingly, the instant Amendments 2 through 5 are intended to make clear that the incorporation by reference of the 'rainbow' software and documentation is through the compact disc appendix and not through reference to the URL where the material may be downloaded.**

7. In response to Item 6 of the Office communication of April 20, 2006, Applicant responds as follows. The final result that follows use of the disclosed invention is a display of words and phrases taken from literature abstracts and other text corresponding to each cluster, arranged in the order of the sorted numerical weights that have been assigned by the system to those words and phrases, using a classification algorithm (default=naivebayes). Examples of such displays are disclosed in Tables 1 and 2 (pages 52-54), generated as described on pages 38, lines 4-22 and page 39, lines 1-2. As described there, by default, all the words with positive weights are read into the Key Words or Phrases section of the system (i.e., Tables 1 and 2 show only the 25 words having the largest positive weights for their respective clusters). Taken out of context of the disclosure as a whole, the text "words or phrases that are most uniquely associated with literature abstracts..." in Claim 1, line 5, might be interpreted to imply that there is some "gold standard" that defines how uniquely a word or phrase is associated with the literature abstracts. Applicant did not mean to imply that such a standard exists. Applicant meant instead, in the context of the disclosure as a whole, that some words and phrases have greater numerical weights than others, for a given cluster and classification method, and that the words with greater numerical weights are more uniquely associated with the literature abstracts, as defined by that classification algorithm. In view of the vagueness of the term "most uniquely associated" when taken out of the context of the disclosure as a whole, Applicant has revised Claim 1 to make clear that the annotation is accomplished "by displaying words and phrases taken from literature abstracts and other text corresponding to each subset of genes, arranged in the order of sorted numerical weights that the system assigns to the words and phrases".

8. Applicant requests pursuant to MPEP 707.07(j) that the Examiner draft one or more suitable claims for the applicant, if the Examiner finds patentable subject matter disclosed in this application, but feels that Applicant's present claims are not entirely suitable.

Respectfully submitted,



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